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CENTRAL FAX CENTER****APR 24 2008**

Application No.: 10/489,337
Response dated: April 11, 2008
Response to Office Action of October 12, 2007

REMARKS/ARGUMENTS

This is responsive to the Office Action dated January 24, 2008. A response is due by April 24, 2008, with out an extension of the time for responding to the Office Action.

Claims 36 through 47 are now pending in the application. These are essentially the prior existing claims, but are new, pending claims because of the extensive changes made in the present response. These claims are based upon the claims that have be granted in the corresponding European patent application over the prior art reference from the International Search Report. The basis for the new claims can be found in the prior claims, including claims 2 and 4, and the specification (especially page 6, lines 17-20, page 7, lines 4-5 and 19-21, page 10, line 1, and page 17, lines 4-14). No new matter is believed to be introduced by the new claims since they are supported by the prior claims and the specification.

Claims 1,6-8, 10, and 24 were rejected as anticipated under 35 U.S.C. § 102(b) by Hamil (GB 1,039,540). Claims 2-5 and 9 were rejected under 35 U.S.C. § 103(a) as unpatentable over Hamil in view of Doner et al. (US Patent No. 6,147,206) combined with Levine (US Patent Publication 2005/0148056). Claims 1-10 and 23-27 were further rejected under 35 U.S.C. § 103(a) as being unpatentable over Horley et al. (EP 0 949 307) in view of Doner et al. combined with evidence given by Levine.

The problem addressed by Applicant's invention is how to reduce or avoid the use of environmentally unfriendly coalescing solvents in architectural coating compositions (eg paints) without creating an unacceptable loss of scrub-resistance especially when the paints are applied during periods of colder ambient temperatures. Applicant's film forming binder polymer enables the use of coalescing solvents to be avoided or at least reduced without creating a scrub resistance problem. This is achieved by using a binder polymer modified by the presence of a mixture which is obtained from plant fibre (see Page 9 lines 17 of Applicant's Specification) and which includes protein and polysaccharide. The protein and polysaccharide mixture has been "de-starched" to the extent that it contains less than at least 2 wt% of starch (see Page 9 lines 2 and 3 of Applicant's Specification). The removal of starch is essential if the mixture is to be adequately soluble in the manufacturing systems and formulations used for architectural coating compositions. This combination is not taught by the cited prior art references.

Further, the use of a de-starched protein-polysaccharide combination also makes an

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additional contribution to avoidance of a scrub resistance problem in those compositions (particularly paints) which contain titanium dioxide as an opacifier or white pigment. It can do this because it has been found to increase the opacifying and pigmenting efficiency of the titanium dioxide so that, for a given opacity or whiteness, less of the titanium dioxide needs be used in the composition. This improves scrub resistance because non-film forming components (such as titanium dioxide) decrease the cohesion of the dried film and hence they decrease its scrub resistance. The ability to use less titanium dioxide will therefore lessen its adverse effect on scrub resistance and hence it will improve the scrub resistance of the paint.

Hamill does not anticipate the present invention because Hamill refers primarily to coating compositions for paper and board, (see Page 1 line 88). It does not disclose a film forming binder polymer for architectural coating compositions, that is to say, coating compositions such as paints, varnishes or wood stains, which can be applied by brush, roller or pad at ambient temperatures, which would be about 0 to 30 °C, to surfaces associated with buildings, furniture or fittings found in or around buildings (see Page 1 lines 3 to 6 of the Applicant's Specification). More importantly, Hamill does not disclose film forming binder polymer compositions containing a mixture of protein and polysaccharide which is de-starched.

Even in the absence of not expressly disclose a combination of both protein and polysaccharide, Hamill does not disclose any technical reason for combining protein with polysaccharide in preference to any of the many other materials proposed by Hamill. To arrive at the combination of protein and polysaccharide, it is necessary to make a selection from no fewer than 10 lists of alternative components and a selection of that complexity is not sufficient to anticipate or destroy the novelty of the Applicant's new Claims.

Yet further, Applicant submits that the presently claimed invention would not be obvious from Hamill either alone or in combination with any other of the cited prior art references. Hamill is concerned with a technique involving the use of foam in the coating of often rough surfaces of papers or boards whilst avoiding any significant wetting the surface, (see Page 1 lines 71 to 81 of Hamill). Such a technique has no relevance to painting the walls of buildings or similar non-paper surfaces at ambient temperatures. It is not teach nor suggest a starting point from which to find a way of reducing or eliminating the use of coalescing solvents in architectural coating compositions as the Applicants have achieved.

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Horley relates to the problem of how to use materials obtained from renewable resources in architectural coating compositions and to this end it discloses the use of lightly oxidised starch. Light oxidation makes the starch soluble. Likewise, the Applicant's invention also employs a material which is obtained from renewable resources. However, the Applicant's material is not a starch as is taught by Horley. It is a de-starched mixture which includes protein and polysaccharide. Horley does not disclose such a mixture nor that any residual starch content of such a mixture should be less than 2 wt% nor that use of the mixture can lead to the avoidance of some or all of the coalescing solvents usually needed in architectural coating compositions..

Further, Horley does not disclose the use of protein in a combination with a de-starched polysaccharide nor does it give any reason to suppose that the presence of the protein in such a combination might be essential to achieving a successful reduction in or total avoidance of the use of the coalescing solvents. Accordingly, the Applicant submits that Horley does not give a person skilled in the art any reason to use protein alongside de-starched polysaccharide and so to choose to use protein in a mixture with polysaccharide was not obvious over Horley. Therefore, the present claimed invention would not be anticipated by or obvious from Horley

Doner discloses a high yield process for producing high quality corn fibre gum using hydrogen peroxide. It is silent on the problem addressed by the Applicant, namely, that such a binder could be used to make a paint avoiding the use of environmentally unfriendly coalescing solvents. It is incorrect, therefore, to conclude that this document, alone or in combination with any other, would suggest to a person skilled in the art that the corn fibre gum so extracted would be a good, let alone an obvious, place to start in seeking a solution to overcome the problem. Nor would it cure the deficiencies of either Hamill or Horley. It is only hindsight, and with the Applicant's invention in mind, that would provide the motivation to try the Applicant's approach and that is an improper basis for finding obviousness.

Levine relates concerned to the use of microorganisms, especially the yeast strains of the genus *Kluyveromyces*, for the generation of ethanol from lignocellulosic waste materials (abstract). Levine makes no suggestion that a binder polymer can be modified by the presence of a mixture which includes protein and polysaccharide wherein the mixture is bonded to or is in intimate mixture with the binder polymer and wherein the mixture contains less than 2 wt% of starch, as required by claim 1; nor that such a binder could be used to make a paint avoiding the use of environmentally

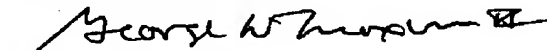
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unfriendly coalescing solvents. The subject matter of this reference is so far removed from the present invention that it does not provide any motivation to a person skilled in the art, either on its own or in combination with any other reference, to serve as an obvious starting point for the present invention nor does it cure the deficiencies in either Hamill or Horley.

For the above reasons, Applicants request reconsideration and withdrawal of the rejections and allowance of presently pending claims 28-39.

Should the Examiner wish to discuss any of the foregoing in more detail, the undersigned attorney would welcome a telephone call.

Respectfully submitted,



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